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SERUM PROTEIN BINDING OF TRIIODOTHYRONINE-^{125} I IN OBESITY AND CONTRACEPTION

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Binding of T_3-125 to serum proteins was determined using dextran gel filtration. Values (means ± S.D.) of 61 obese, clinically euthyroid patients (35 males, 26 females) and of 37 controls were compared. Weight expressed in % of average was 140.7 ± 19.1 % for obese and 97.3 ± 13.8 % for lean persons. $PB^{127}I$ values were 4.47 ± 1.01 μg % for obese and 5.09 ± 0.97 μg % for normal weight persons. Values of "free" T_3-125 were 12.38 ± 1.95 % for obese and 15.01 ± 1.72 % for lean persons and values of protein bound T_3-125 were 87.64 ± 1.96 % for obese and 84.98 ± 1.70 % for normal weight controls. PB^{127} I values of obese patients were significantly lower than controls ($p < 0.01$). Binding of T_3-125 to serum proteins was elevated in obesity ($p < 0.001$). "Free" T_3-125 values and weights were correlated ($r = -5.125$, $p < 0.001$) On the basis of these data patients are being treated with low doses of L-or. D-triiodothyronine, respectively.

PB^{127} I values increased in 8 females treated with lynestrenol + mestranol and in 10 females treated with chlormadinonacetate + mestranol ($p < 0.0025$). However, a significant ($p < 0.005$) decrease of "free" T_3-125 was found concomitantly, resulting in a euthyroid status of these patients.

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